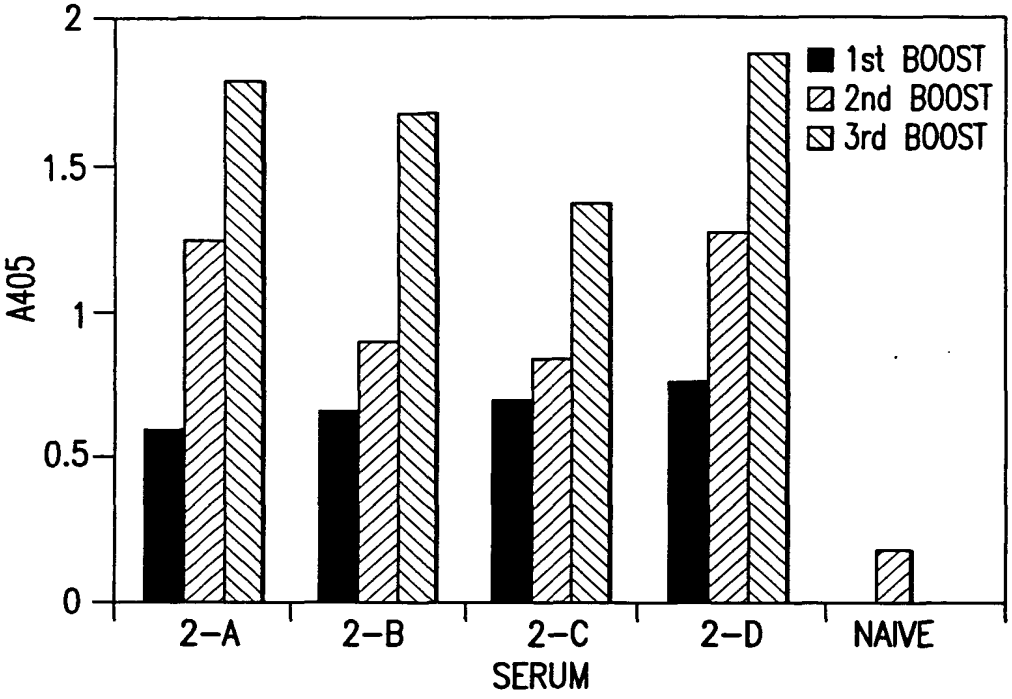
2
1.5
1
0.5
0
A405
1st BOOST
2nd BOOST
3rd BOOST
2-A
2-B
2-C
2-D
NAIVE
SERUM

FIG. 1A

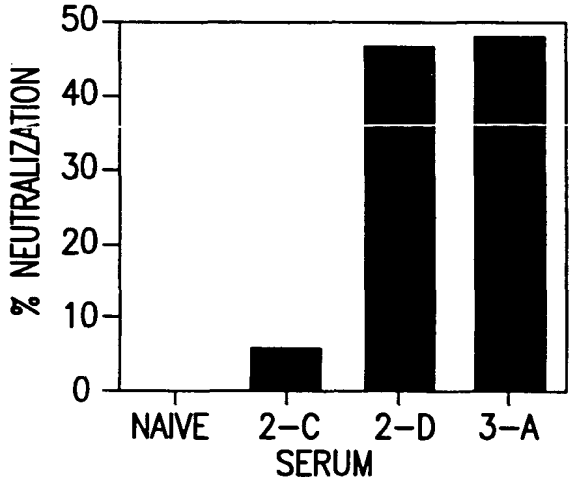
50
40
30
20
10
0
% NEUTRALIZATION
NAIVE
2-C
2-D
3-A
SERUM

FIG. 1B

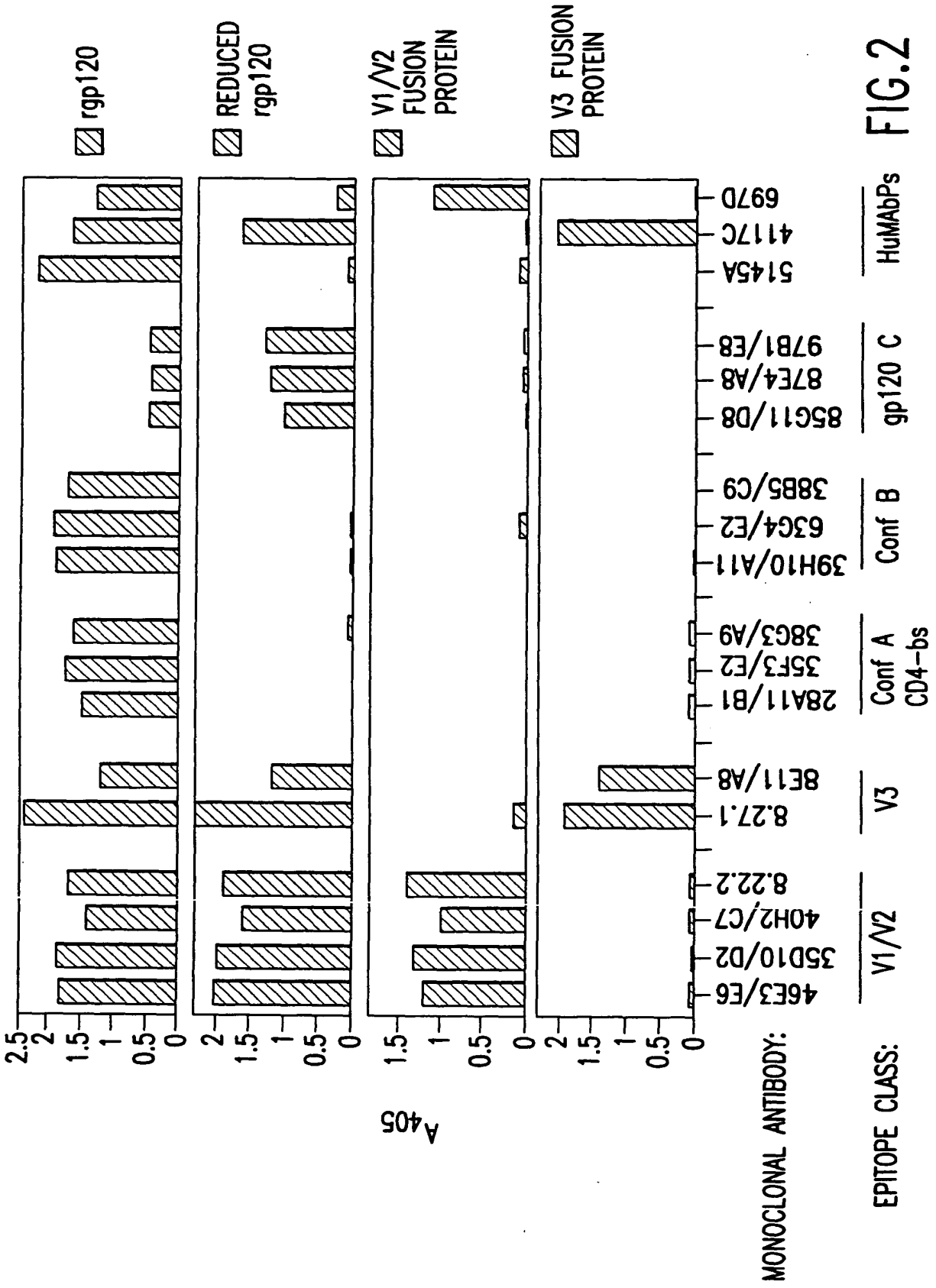
rgp120
REDUCED rgp120
V1/V2 FUSION PROTEIN
V3 FUSION PROTEIN
A405
2.5
2
1.5
1
0.5
0
MONOCLONAL ANTIBODY:
EPITOPE CLASS:
4E3/E6
35D10/D2
40H2/C7
8.22.2
V1/V2
8.27.1
8E11/A8
V3
28A11/B1
35F3/E2
38C3/A9
Conf A CD4-bs
39H10/A11
63G4/E2
38B5/C9
Conf B
85G11/D8
87E4/A8
97B1/E8
gp120 C
5145A
4117C
697D
HuMAbPs

FIG.2

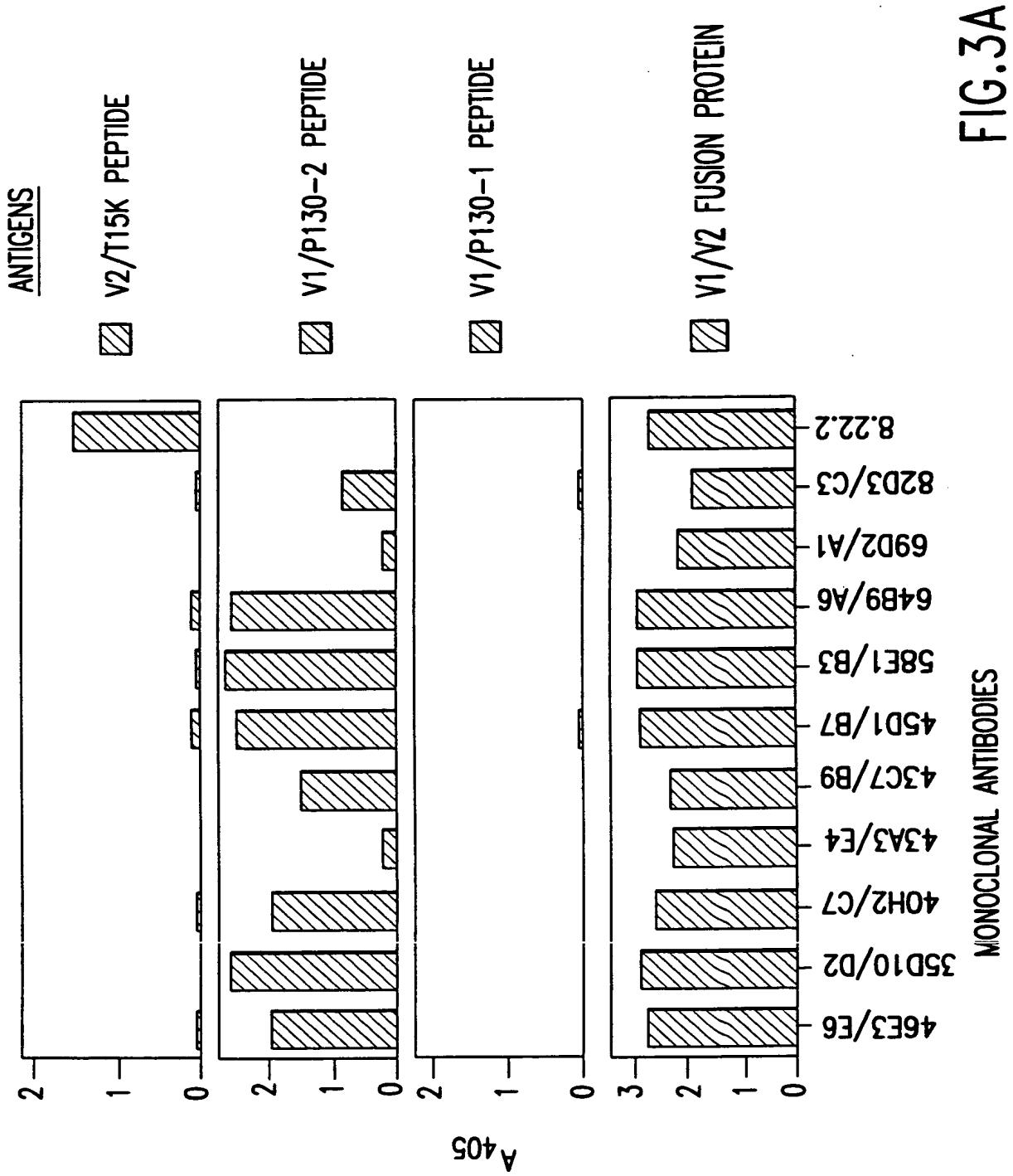
ANTIGENS
V2/T15K PEPTIDE
V1/P130-2 PEPTIDE
V1/P130-1 PEPTIDE
V1/V2 FUSION PROTEIN
A405
MONOCLONAL ANTIBODIES
4E63/E6
35D10/D2
40H2/C7
43A3/E4
43C7/B9
45D1/B7
58E1/B3
64B9/A6
69D2/A1
82D3/C3
8.22.2

FIG.3A

	LEFT STEM	V1	CENTRAL	V2	RIGHT STEM	
FP	LKPCVKLTPLCVTLHCTNL	KNATNTKSSNWKEMDRGEIKNCSF		KVTTSIRNKMQKEYALFYKLDVVPIDNDNTSY	KLINCNTSVITQACPKVS	SEQ ID NO: 1
P130-1	STNL	KNATNTKSSNW				SEQ ID NO: 2
P130-2		NTKSSNWKEMD	GEIK			SEQ ID NO: 3
T15K				TTSIRDKVQKEYALFYK		SEQ ID NO: 4

FIG.3B

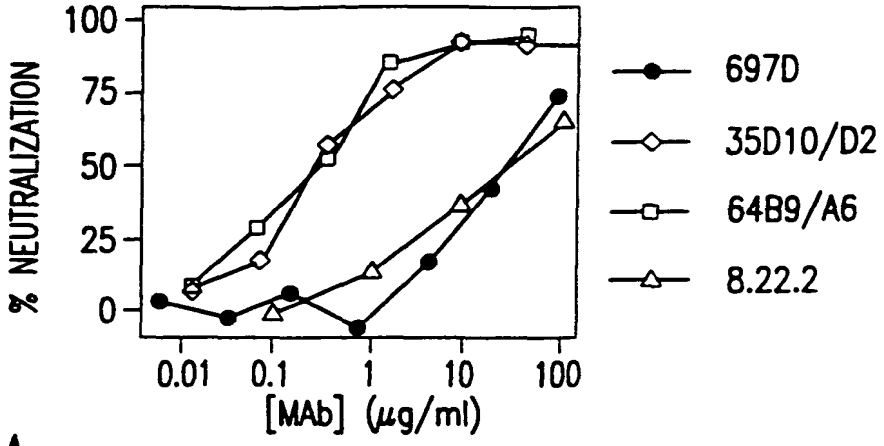

FIG.4A

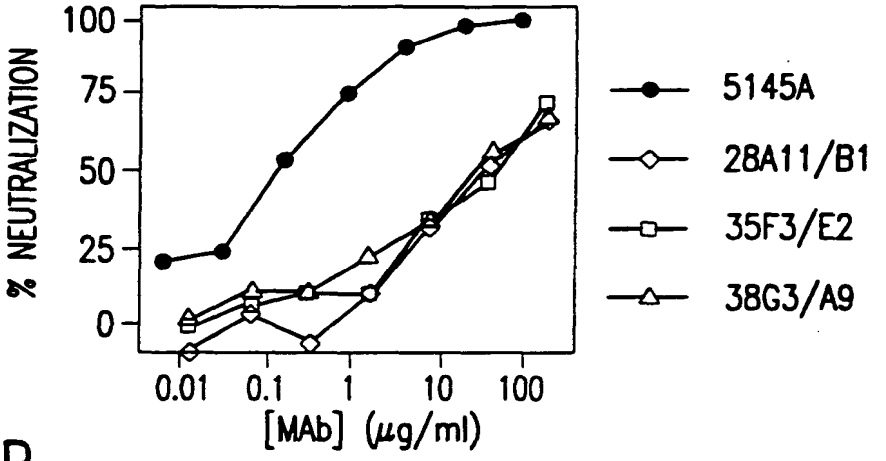

FIG.4B

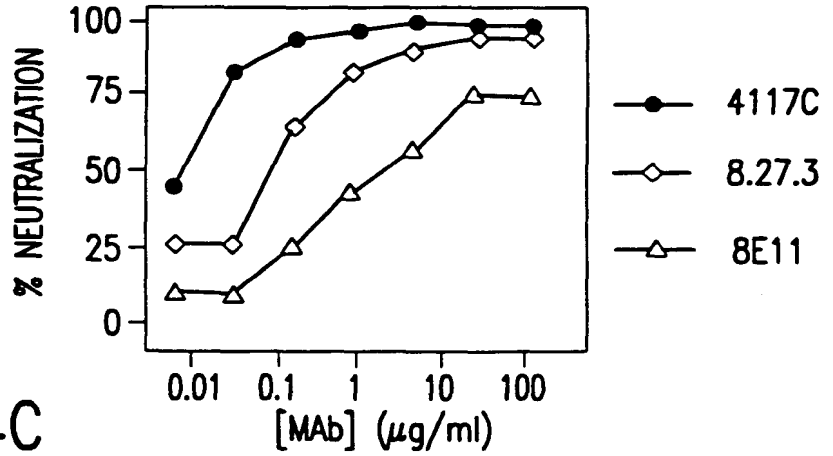

FIG.4C

COMPETING Mab		% INHIBITION OF BINDING BY BIOTINYLATED			
EPITOPE	NAME	43A3/E4	35D10/D2	697D	sCD4
V1 LINEAR	35D10/D2	89	89	7	26
	40H2/C7	82	83	5	13
	43A3/E4	78	82	9	10
	43C7/B9	82	83	8	13
	45D1/B7	85	85	11	17
	46E3/E6	86	86	9	−29
	58E1/B3	88	88	4	21
	64B9/A6	89	89	12	24
	69D2/A1	58	65	12	37
	82D3/C3	52	56	11	−35
V2 LINEAR	8.22.2	1	1	84	−1
V2 CONF.	697D	3	−5	83	6
	SC258	9	21	45	0
V3	8.27.3	9	24	11	9
CD4bs	5145A	0	11	−55	93

FIG. 5

GROUP		Mab	FUSION PROTEIN JR-CSF Circular	FUSION PROTEIN JR-CSF Linear	SYNTHETIC PEPTIDE MN Linear	SYNTHETIC PEPTIDE MN Circular	SYNTHETIC PEPTIDE MN-IIIB	SYNTHETIC PEPTIDE IIIB	SYNTHETIC PEPTIDE MN 1-20	SYNTHETIC PEPTIDE MN 11-30	SYNTHETIC PEPTIDE MN 21-40
XENOMOUSE® Mabs	A	8E11/A8	1.94	0.98	0.82	0.88	0.95	0.01	0.01	0.69	0.01
	A	6.1	3.11	0.78	0.75	0.99	1.60	0.02	0.04	1.22	0.02
	A	6.7	3.00	0.87	0.94	0.94	1.57	0.02	0.04	1.11	0.03
	B	8.27.3	3.56	2.03	2.07	1.79	0.29	0.00	0.30	0.03	0.00
	C	694	2.03	2.20	2.56	2.00	3.36	1.99	2.72	1.72	0.05
	D	447-52D	2.73	2.56	2.90	2.51	3.11	1.14	3.51	0.07	0.03
HuMabPs	E	838	2.03	2.74	2.02	1.38	0.08	0.02	3.26	0.07	0.06
	E	1006	1.97	1.49	1.46	1.11	0.06	0.02	2.60	0.05	0.06
	E	419	1.94	1.54	2.03	1.60	0.05	0.03	1.94	0.06	0.05
	E	4117C	3.08	2.96	2.90	2.84	0.13	0.09	2.53	0.12	0.12
	E	4148D	2.61	1.84	1.75	1.82	0.07	0.02	2.10	0.07	0.05

FIG. 6A

ISOLATE	SEQUENCE	
SF162 (rgp120)	CTRPNNNTRKSITIGPGRAFYATGDIIGDIRQAHC	SEQ ID NO: 5
JR-CSF (fusion protein)	CTRPSNNTRKSIHIGPGRAFYTTGEIIGDIRQAHC	SEQ ID NO: 6
MN linear	TRPNYNKRKRIHIGPGRAFYTTKNIIGTIRQAH	SEQ ID NO: 7
MN circular	CTRPNYNKRKRIHIGPGRAFYTTKNIIGTIRQAHC	SEQ ID NO: 8
MN 1-20	CTRPNYNKRKRIHIGPGRAF	SEQ ID NO: 9
MN 11-30	RIHIGPGRAFYTTKNIIGTI	SEQ ID NO: 10
MN 21-40	YTTKNIIGTIRQAHCNISRA	SEQ ID NO: 11
PND MN/IIIB MN 6-27+QR	YNKRKRIHIQRGPGRAFYTTKNII	SEQ ID NO: 12
HIV-1IIIB (34 aa)	TRPNNNTRKSIRIQRGPGRAFVTTGKIGNMRQAH	SEQ ID NO: 13

FIG. 6B

7/11

Applicants Abraham Pinter et al. Confirmation No. Not yet assigned
Application No. Not yet assigned Filed Concurrently herewith
For USE OF TRANSGENIC MICE FOR THE EFFICIENT ISOLATION OF NOVEL HUMAN MONOCLONAL ANTIBODIES WITH NEUTRALIZING ACTIVITY AGAINST PRIMARY HIV-1 STRAINS AND NOVEL HIV-1 NEUTRALIZING ANTIBODIES
Docket No. ABX-PHRI CON Reg. No. 43,753
Attorney Stanley D. Liang Tel: (212)-596-9000

			% INHIBITION OF BINDING BY BIOTINYLATED		
EPITOPE	COMPETING Mab	sCD4	CD4bs 38G3/A9	Conf-B 63G4/E2	gp120-C 97B1/E8
Conf A CD4bs	38G3/A9	86	91	−29	ND
	35F3/E2	86	90	−22	ND
	55D5/F9	87	85	−18	ND
	28A11/B1	82	ND	ND	ND
	46D2/D5	62	ND	ND	ND
	67G6/C4	61	ND	ND	ND
Conf B	38B5/C9	5	−32	84	ND
	39H10/A11	0	−32	91	ND
	40D3/C11	9	−26	90	ND
	49B11/A1	12	−29	90	ND
	52G5/B9	19	−37	90	ND
	56C4/C8	17	−45	88	ND
	57H5/D7	32	−15	90	ND
	63G4/E2	27	−24	91	ND
	55E4/H1	13	−46	81	−35
	57B6/F1	−1	−23	56	−34
	65B12/C5	20	−22	40	−31
gp120 C	85G11/D8*	14	−3	0	65
	87E4/A8*	20	−11	−3	70
	97B1/E8*	20	−13	−1	71
CD4bs	5145A	93	ND	ND	ND
V3	4117C	30	ND	ND	ND

FIG. 7

		R5 CLADE B			X4 CLADE B			CLADE E	
EPITOPE	Mab	SF162	BaL	JR-FL	MN	IIIB	SF2	93TH975	CM235
V3	8.27.3	++	++	++	++	-	++	-	-
	6.7	++	+	+	+	-	-	-	-
	8E11/A8	++	+	+	+	-	-	-	-
	6.1	++	+	+	+	-	-	-	-
V1 LINEAR	35D10/D2	++	-	-	-	-	-	-	-
	40H2/C7	++	-	-	-	-	-	-	-
	43A3/E4	++	-	-	-	-	-	-	-
	43C7/B9	++	-	-	-	-	-	-	-
	45D1/B7	++	-	-	-	-	-	-	-
	46E3/E6	++	-	-	-	-	-	-	-
	58E1/B3	++	-	-	-	-	-	-	-
	64B9/A6	++	-	-	-	-	-	-	-
	69D2/A1*	+	-	-	-	-	-	-	-
	82D3/C3*	+	-	-	-	-	-	-	-
V2	8.22.2	++	++	++	-	-	-	-	-
Conf A CD4bs	28A11/B1	++	+	+	++	++	+	-	-
	35F3/E2	++	++	+	++	++	+	-	-
	38G3/A9	++	++	+	++	++	+	-	-
	55D5/F9	++	++	+	++	++	+	-	-
	46D2/D5	++	+	-	+	++	+	-	-
	67G6/C4*	+	-	-	-	-	-	-	-
Conf B'	39H10/A11	++	+	+	+	++	+	+	+
	63G4/E2	++	+	+	+	++	+	+	+
	38B5/C9	++	+	+	++	++	-	+	-
	52G5/B9	++	+	+	+	++	-	+	-
	55E4/H1	++	+	+	+	++	-	+	-
	49B11/A1	++	+	+	+	++	-	+	-
	57H5/D7	++	+	+	+	+	-	+	-
	40D3/C11	++	+	+	+	++	-	+	-
	56C4/C8	++	-	+	+	++	-	+	-
	65B12/C5	+	+	-	+	+	-	-	-
	57B6F1	++	-	-	+	+	-	-	-
gp120 C	97B1/E8*	+	+	+	+	+	+	-	-
	87E4/A8*	+	+	+	+	+	-	-	-
	85G11/D8*	+	+	-	+	-	-	-	-
CD4bs	5145a	++	++	+	++	++	++	-	+

FIG.8

EPITOPE	Mab	CROSS-REACTIVITY	SF162 ND_{50}
NEUTRALIZING XENOMOUSE^R Mabs			
V1 Linear	35D10/D2	SF162	0.27
	40H2/C7		1.9
	43A3/E4		3.2
	43C7/B9		1.4
	45D1/B7		1.9
	46E3/E6		0.30
	58E1/B3		0.55
	64B9/A6		0.29
	69D2/A1*		4.5
	82D3/C3*		1.2
V2 Linear	8.22.2	SF162 BaL JR-FL	48
V3 Linear	8E11/A8	SF162 BaL JR-FL MN	2.6
V3 Conf.	8.27.3	SF162 BaL JR-FL MN SF2	0.11
Conf. A CD4bs	28A11/B1	SF162 BaL JR-FL MN IIIB SF2	35
	35F3/E2		60
	38G3/A9		31
	55D5/F9		37
NON-NEUTRALIZING XENOMOUSE^R Mabs			
V3 Linear	6.1	SF162 BaL JR-FL MN	>50
	6.7		>50
Conf. A CD4bs	46D2/D5	SF162 BaL MN IIIB SF2	>>200
	67G6/C4*	SF162	>>200
Conf. B	39H10/A11	SF162 BaL JR-FL MN IIIB	>>200
	63G4/E2	SF2 93TH975 CM235	>>200
	38B5/C9		>>200
	52G5/B9		>>200
	55E4/H1	SF162 BaL JR-FL MN	>>200
	57H5/D7	IIIB 93TH975	>>200
	40D3/C11		>>200
	49B11/A1		>>200
	56C4/C8	SF162 JR-FL MN IIIB 93TH975	>>200
	57B6/F1	SF162 MN IIIB	>>200
	65B12/C5	SF162 BaL MN IIIB	>>200
gp120 C	85G11/D8*	SF162 BaL MN	>>200
	87E4/A8*	SF162 BaL JR-FL MN IIIB	>>200
	97B1/E8*	SF162 BaL JR-FL MN IIIB SF2	>>200
CONTROL HuMabPs			
CD4bs	5145a	BROADLY REACTIVE	0.14
V2 Conf.	697D	BROADLY REACTIVE	80
V3 Linear	4117c	BROADLY REACTIVE	0.02

FIG. 9

	V1	Central	V2	V2 stem
8.22.2 Reactive				
SF162	HCTNLKNATNTKSSNWKEMDR SEQ ID NO: 18	GEIKNCSF	KVTTSIRNKMQKEYALFYKLDVVPIDNDNTS	YKLINC
CASEA2B	NCIDLRNATNATSNSNTTNTTSSSGGLMMEQ SEQ ID NO: 19	GEIKNCSF	NITTSIRDKVQKEYALFYKLDIVPIDNPKNSTN	YRLISC
JR-FL	NCVKDVNATNTTNDSEGTMER SEQ ID NO: 20	GEIKNCSF	NITTSIRDEVQKEYALFYKLDVVPIDNNNTS	YRLISC
BaL	NCTDLRNATNGNDTNTTSSSRGMVGG SEQ ID NO: 21	GEMKNCSF	NITTNIRGKVQKEYALFYKLDIAPIDNNSNNR	YRLISC
8.22.2 Nonreactive				
HXB2d	KCTDLKNDTNTNSSSGRMIMEK SEQ ID NO: 22	GEIKNCSF	NISTSIRGKVQKEYAFFYKLDIIPIDNDTTS	YKLTSC
MN-ST	NCTDLRNTTNTNNSTANNNSNSEGTIKG SEQ ID NO: 23	GEMKNCSF	NITTSIRDKMQKEYALLYKLDIVSINDSTS	YRLISC
SF2	NCTDLGKATNTNSSNWKEEIK SEQ ID NO: 24	GEIKNCSF	NITTSIRDKIQKENALFRNLDVVPIDNASTTTNYTN	YRLIHC

FIG.10

Applicants: Abraham Pinter et al.
Application No. / Filed: Not yet assigned
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Docket No.: ABX-PHRI CON
Attorney: Stanley D. Liang
Confirmation No.: Not yet assigned
Reg. No.: 43,753
Concurrently herewith
Sheet 11 of 11
Tel: (212)-596-9000